

IN THE SPECIFICATION:

Please amend the specification as follows, by replacing the following paragraphs:

Paragraph at Page 32, Line 16:

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AI An embodiment of the invention is shown in which a hard braking sensor 34 is attached to the brake pedal 18. Preferably the sensor 34 is attached to the front of the bare brake pedal and covered by a brake pedal cover 20, although it may be otherwise integrated or attached to the pedal. The hard braking sensor 34 contains a pressure transducer which senses applied pressure, preferably over a large surface area so that pressure applied anywhere on the pedal will be registered. The pressure transducer exemplified within this embodiment is a load cell whose output is generated across an internal Wien bridge. An acceleration sensor may be optionally incorporated within the hard braking sensor (HBS) 34. The exemplified hard braking sensor 34 may be mounted to the brake pedal 18 by any of various means, such as by fasteners, adhesives, or physical configuration. The wiring 36 from the HBS can travel through a hole in the pedal face or alternately be threaded around the pedal. The HBS may alternatively be configured as a transponder wherein no wiring is required, however, the present current requirements of the HBS may complicate the implementation. The pedal cover 20 provides a resilient cushion for the brake pedal 18 and distributes localized forces onto the underlying sensor.

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Paragraph at Page 58, Line 2:

“Related to the aforementioned speed input is an optional input from the acceleration pedal 175 which may be utilized to increase reaction advantage. It will be appreciated that a driver typically operates the brake and accelerator with the same foot, therefore, prior to a driver applying pressure to the brake pedal they must first release their foot from the accelerator pedal. The acceleration pedal sensor input to the hard braking controller 148 senses the amount of accelerator pedal depression, and is capable of registering changes in the amount of pedal depression. FIG. 41 and FIG. 42 depict an accelerator pedal sensing arrangement capable of registering the amount of pedal depression. An HBC equipped for monitoring the accelerator pedal can utilize the data to modify actions in relation to the other sensors. For example, if the driver is increasingly depressing the accelerator pedal then the severity of received event conditions may be elevated, since it is likely the driver has not perceived any such danger, by virtue of their increasing acceleration. By way of further example, the system can sense for an abrupt release of pressure, consistent with a driver removing his/her foot from the accelerator pedal to activate the brakes, wherein the HBC can generate an alert signal, such as by activating a hard braking light or transmission. It will be appreciated that the HBC may utilize the status of acceleration in a number of ways consistent with providing enhanced reaction advantage to the driver.”

Paragraph at Page 60, Line 7:

“When utilized without an HBC, the acceleration sensor and conditioner of FIG.

41 and FIG. 42 may provide for a direct reaction advantage in a number of ways. First, by sensing for an abrupt release of accelerator pedal pressure above a given speed, as registered by speed input 1834, the unit can slightly begin engaging the brakes. It can be presumed that at highway speeds, the driver will generally not abruptly yank their foot from the accelerator pedal unless they are attempting to engage the brakes. The system can start the process of engaging the brakes through a brake assist output 1836 which is capable of driving an activation device, such as solenoid 1838 connected to ground 1840. The system may also alert drivers behind the vehicle to the impending quick deceleration by activating a hard braking indicator, such as reverse lights, through the hard braking signal (HBS) line 1842. In the case of either HBC use, or use with other systems or as a standalone system, the sensing of accelerator pedal position can provide enhanced reaction advantages to the driver of a vehicle, as well as to those following said driver."

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